

## **FIRE DEPARTMENT MECHANIC**

(Competitive Class)

### **DISTINGUISHING FEATURES OF THE CLASS**

This class encompasses positions in the repair and maintenance of fire department vehicles and equipment. Employees of this class inspect and test the working condition of all vehicles at regular intervals, perform required safety inspections on all department vehicles, repair fire engines, fire pumps, equipment, tools or fixtures used on fire apparatus. The Fire Department Mechanic performs routine tasks with limited supervision, reporting directly to the Assistant Chief of Maintenance.

### **EXAMPLES OF WORK**

Examples listed below are illustrative only. They are not intended to include all duties which may be assigned, neither are they intended to exclude other duties which may be logical assignments to this class.

Performs installation, maintenance and repairs to gasoline engines including intake and exhaust manifolds, cylinder heads, piston, piston rods, piston rings, crankshafts, engine bearings, tappets, gaskets, camshaft and valve lifters, and other components.

Performs installation, maintenance and repairs to diesel engine turbocharges and other system components.

Performs installation, maintenance and repairs to emission systems including mufflers, resonators, catalytic converters, and other system components.

Performs installation, maintenance and repairs to cooling systems including liquid and air cooling systems, radiators, thermostats, water pumps, water hoses, fans and fan belts, and other system components.

Performs installation, maintenance and repairs to drive train systems including drive shafts, differentials, universal joints, and other system components.

Performs installation, maintenance and repairs to fuel systems including fuel pumps, carburetors, chokes, fuel lines and filters, and other system components.

Performs installation, maintenance and repairs to electrical systems including batteries, starter systems, generators, alternators, ignition systems, points, coils condensers, distributors, spark plugs and cables, electronic ignitions, and other system components.

Performs installation, maintenance and repairs to lubricating systems including oil filters, oil seals, PCV systems, and other system components.

Performs installation, maintenance and repairs to steering and suspension systems including front-end and rear-end assemblies, steering linkages, power steering systems, tires, wheel bearings, ball joints, and other system components.

Performs installation, maintenance and repairs to brake systems including drum brakes, disc brakes, power brakes, master cylinders, and other system components.

Performs installation, maintenance and repairs to fire automotive instruments and accessories including speedometers, tachometers, lights and flashers, and windshield wipers.

Performs maintenance and repair of fire automotive equipment using automotive maintenance instruments including the oscilloscope, hydrometer, voltmeter, dwell tachometer, and vacuum gauge.

Performs maintenance and repair to hydraulic equipment including aerial hydraulic pumps, aerial ladders, hydraulic motors and cylinders, and other components.

Performs maintenance and repair to portable equipment and small power tools such as generators, pumps, water towers, power saws, lawn mowers, edgers, and other equipment.

Inspects, maintains, tests, and repairs closed and open-circuit breathing apparatus. Inspects, maintains, tests, and repairs self-contained breathing apparatus including backpack and harness assembly, air cylinder valve, facepiece, regulator, high and low-pressure hoses, low-pressure alarm, exhalation valve, head harness, speaking diaphragms, and airline assemblies. Provides for proper storage of self-contained breathing apparatus. Conducts flow test and refills self contained breathing apparatus using the cascade system and the compressor/purifier system. Maintains records on the use and maintenance of self-contained breathing apparatus.

Inspects, maintains, and repairs nozzles and nozzles assemblies, as well as performs service test of nozzles. Inspects, maintains, and repairs fire hose couplings attached with screw-in expanders, bolted-on collars, tension, and expansion rings.

Performs general maintenance tasks as needed such as refueling vehicles, changing and adding oil, and adjusting headlights in order to assure peak performance of fire apparatus. Performs body repair work such as repairing dents, priming, and painting. Welds items or tempers steel.

Diagnoses mechanical problems from information received from firefighters. Makes repairs at emergency scene when needed. Determines if firefighting apparatus involved in an accident is safe for continued use. Arranges for repair of equipment outside

of the department when needed in accordance with department procedures. Transports, delivers, and picks up equipment for repair or maintenance by driving department vehicles. Performs required safety inspections on all department vehicles, including inspecting equipment after repair.

Organizes, stores, and distributes department property and supplies according to departmental policy. May assist in writing specifications for new fire department equipment. Completes forms and records as required. Participates in training required by the department. May provide on-the-job training for new employees.

Performs any related duties assigned.

### **QUALIFICATION REQUIREMENTS**

Unless otherwise specified, all requirements listed below must be met by the filing deadline for application for admission to the test.

Must meet all requirements of the Municipal Fire and Police Civil Service Law, including being a citizen of the United States and of legal age.

After offer of employment, but before beginning work in this class, must pass a physical examination, the selection and administration of which shall be authorized by the Appointing Authority, designed to demonstrate good health and physical fitness sufficient to perform the essential duties of the position, with or without accommodation.

Applicant must possess one of the following: high school diploma, high school equivalency certificate, high school transcript, affidavit from the issuing high school, associate's or bachelor's degree, or college transcript, any one of which must indicate that graduation has occurred or a degree awarded. A certification of completion shall not be sufficient to substitute for a diploma or equivalency certificate.

Must possess a valid driver's license.

Must be not less than (18) eighteen years of age.

Must have a minimum of (2) two years experience in general automotive mechanics.

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